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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,110	06/30/1999	EUGENE T. WANG	81862.P132	2024

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EXAMINER

EMDADI, KAMRAN

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 07/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/346,110

Applicant(s)

WANG ET AL.

Examiner

Kamran Emdadi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-32 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-4, and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones (US Patent No. 6078595).

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- Regarding claim 1, Jones teaches: a backplane having a switch card interface (Col 11, lines 33-35) and an adapter interface 40 (figure 4) attached to the backplane, with an ATM networking layer connected to a switch interface 20 and a physical layer interface (figure 2), including the adapter interface and the switch interface connected as described in the figure above, wherein the adapter interface having I/O to a physical and switch interface 12a, 12b, 40 (figure 4) and 12a, 12b (figure 2) are shown connecting the physical and network interfaces.
- Regarding claim 2, the control processor (figure 3) is connected to the switch card interface 20 (figure 2).
- Regarding claim 3, a processor bus (figure 9) is connecting a processing unit 30a to 12a, where 12a is part of the switch and adapter interfaces.
- Regarding claim 4, as described in the figure and components above there is a clock reference.
- Regarding claim 12, Jones teaches a backplane having a switch card interface and an adapter card interface as shown above, for a connection to an ATM and SONET switch card. Jones teaches that both ATM and SONET cards are network and physical layer cards respectively and are a part of the disclosed invention (Col 6, lines 59-67 and Col 7 lines 1-10) as pertaining to the references above.

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- Regarding claims 13 and 14, Jones teaches that a switch card type ATM card is attached to an interface in 20 (figure 2) and a physical card type or SONET card is attached to a respective interface 20,22 (figure 3).
 - Regarding claim 15, under the information provided above for the rejection to claims 13 and 14 it is inherent to have a hybrid adapter card functionally interface with an adapter card interface, given the description of a hybrid adapter card in the specification to include the hybrid adaptation of SONET and ATM interfacing, as described above a SONET and ATM adapter having functional interfacing capabilities with respective adapter formats would render the hybrid combination of the two technologies to be of the same interfacing adaptation.
4. Claims 21-26 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Brolin (US Patent No. 6359859).
- Regarding claims 21 and 32, Brolin teaches of a service unit with two backplanes the first is for an ATM type configuration and the second is for a STM or SONET type configuration (Abstract) both of which have been defined above as a network and physical type systems respectively.
 - Regarding claim 22, Brolin teaches of major and minor links between networking components (figure 4).
 - Regarding claims 23 and 24, Brolin teaches of a pair of both receive and transmit traces 126 and 106 respectively (figure 7).

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- Regarding claim 25, Brolin teaches of a bus operation where control and location information is stored in memory, where the process uses a bus to determine the respective information (Col 8, lines 29-37).
- Regarding claim 26, Brolin teaches of a clock related elements (Col 13, line 61).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (US Patent No. 6078595) in view of Tayloe (US Patent No. 6301269).

- Regarding claims 5 and 6, Jones teaches of a device that does all of the necessary functions of the invention except a clock line to connect a processor card to an adapter card. Tayloe teaches that a clock line connects a switch card to a clock card (Col 5, lines 53-55). Therefore it would have been obvious to one skilled in the art at the time the invention was made to have had a clock line connecting a processing card to an adapter card as a correct and implementable way to have a clock device available to an adapter or switch card for timing and interconnection in a related system.

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- Regarding claims 7,8 and 9, the major and minor links as described in the claimed invention, are taught by Tayloe. Tayloe teaches of 8 transmission lines (Col 7, line 1) and furthermore explains that four input and four output data streams are received by each circuit card which are a part of a larger number of circuit cards totaling 128 input and 128 output data streams altogether (Col 3, lines 42-46). A plurality of transmission lines are integral to backplane assembly (Cole 3 line 47-48). But Tayloe fails to teach that a larger link includes plural minor links; however, one skilled in the art would recognize that a larger link would encompass a minor link with less total inputs and outputs or transmit and receive lines. Therefore it would have been obvious to one skilled in the art at the time the invention was made to have a minor link encompassed by a major link to include receive and transmit portions of the circuitry in order to efficiently communicate data with the other connected devices.

6. Claims 10,11,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (US Patent No. 6078595) in view of Sakamoto (US Patent No. 5903544).

- Regarding claims 10 and 11, Jones teaches all of the claimed invention as described above except the interfacing of a card to its respective interface. Sakamoto teaches a switch card adapted to be interfaced to a switch card interface (Col 8, lines 52-57). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have included a card to

be attached to its respective interface, the idea provides a convenient way to avoid further implementation when connecting the card to its respective position in the network.

- Regarding claim 16, Jones teaches an ATM switch card connected to a switch card interface but fails to teach of another redundant ATM switch card, where Sakamoto teaches of a redundant ATM switch card interface attached to each of the necessary ATM cards (Col 8, lines 52-56). Therefore it would have been obvious to one skilled in the art at the time the invention was made to include a redundant switch card for ATM to provide extra protection in case of a failure in the configuration of the network.

7. Claims 17,18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (US Patent No. 6078595) in view of Cardona (US Patent No. 6317439).

- Regarding claim 17, Jones teaches all of the above components of the claimed invention except for a major link and minor link configuration connecting adapter cards. Sakamoto teaches of a redundant backbone configuration with large major connections containing smaller minor connections 2-b, 2-a (figure 3). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have larger major links between cards and to have a major link be the parent of more than one minor link for the easy combination of links.

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- Regarding claim 18 Jones teaches all of the above components of the claimed invention except for a redundant SONET switch card configuration. Cardona teaches that a more than one SONET cards are needed for redundancy and synchronization in a matrix type of configuration (Col 4, lines 25-30). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a more than one SONET card in case of a system failure.

- Regarding claim 19, Jones teaches all of the above components of the claimed invention except for a redundant SONET switch card configuration with major links between the related components. Cardona teaches of larger links comprised of smaller links between SONET line card devices (figure 4). Therefore, it would have been obvious at the time the invention was made to have had major links between the SONET switch card devices in order for them to transfer data faster and interchangeably.

8. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brolin (US Patent No. 6359859) in view of Kleyman (US Patent No. 6373837). Brolin teaches of a device that meets all of the limitations described in the claims except a card interface on a backplane for a switch, adapter or processor card. Kleyman teaches of a backplane that can associate with any type of card in a network environment described by the application. Therefore it would have been obvious to one skilled in the art at the time the

invention was made to have a backplane affix to a card and more specifically a switch, adapter or processor card since they all represent functionality commonly found in a network SONET/ATM environment.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. Claim 31 is rejected under 35 U.S.C. 112, first paragraph, as containing

subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "a lithographic process that employs a mask set" is not mentioned in the specification and lacks immediate understanding or common knowledge within the art to one skilled in the art.

11. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Regarding claim 5, claim 5 recites the limitation "said clock line" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

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12. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to further teach and render obvious the following claimed features:

- Regarding claim 20 having four switch card interfaces and twelve adapter card interfaces.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is (703) 305-4899. The examiner can normally be reached between the hours of 8am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached at (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Kamran Emdadi

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RICKY NGO
PRIMARY EXAMINER